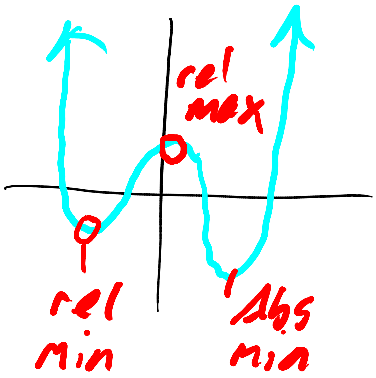
Halg1

Interpret Graphs

Key Features of Graphs

- x-intercept
- y-intercept
- line symmetry - equation of the vertical line that cuts the graph symmetrically
- positive - when graph is above x-axis
- negative - when graph is below x-axis
- increasing decreasing — goes up — goes down — constant - height does not change
- Extrema
  - Minimum/maximum – high point
    - Relative (local) - points that are higher or lower than surrounding points (low point)
    - Absolute - highest and lowest point
- End Behavior - what happens to the y-values at the ends
  - As x increases, y ——



- Calculator: $x^3 + 2x^2 - 3x - 1$

Notation - Inequalities

Ex: negative - between which x-values is the graph negative

$3 < x < 5$